Amendments to the Claims

The listing of claims will replace all prior versions and listings of claims in the application.

Claim1 (currently amended): A method of producing an electrode for a capacitor from a foil comprising:

(a) applying a laser beam to a portion of said foil to ~~heat said portion and~~ create a wave pattern on said foil; and

(b) etching said foil.

Claim 2 (original): The method of claim 1, wherein said step of applying a laser beam further comprises:

heating selected portions of said foil to a temperature that causes local melting of the foil.

Claim 3 (original): The method of claim 1, wherein said step of applying a laser beam further comprises:

heating selected portion of said foil to a temperature that causes an oxide layer to form on a surface of said foil.

Claim 4 (original): The method of claim 1, further comprising:

applying said laser beam before said etching step.

Claim 5 (original): The method of claim 2, further comprising:

applying said laser beam after said etching step.

Claim 6 (original): The method of claim 1, wherein said etching step comprises:

etching said foil electrochemically.

Claim 7 (original): The method of claim 6, wherein said etching step comprises:

(1) placing said foil in an electrochemical bath comprising an anode portion comprising an anode electrolyte and a cathode portion;

(2) connecting said foil to a charge source in the anode portion of said bath;

(3) applying a charge to said foil;

(4) monitoring the charge on said foil; and

(5) stopping said etching step when said charge reaches a predetermined level.

Claim 8 (original): The method of claim 7, further comprising:

applying charge at a current density of about 0.10-0.25 Amp/cm^2.

Claim 9 (currently amended): The method of claim 7, wherein said stopping step comprises:

stopping said etching step when said charge reaches a predetermined level in the range of about 15 to 50 Coulombs/cm^2.

Claim 10 (original): The method of claim 7, wherein said placing step comprises:

placing said foil in an aqueous anode electrolyte comprising about 1-3% sodium chloride and about 2-5% sodium perchlorate or sodium persulfate.

Claim 11 (original): The method of claim 10, wherein said placing step further comprises:

heating said anode electrolyte to a temperature of about 80-90°C.

Claim 12 (original): The method of claim 1, wherein said step of applying a laser beam comprises:

applying a Nd:VO_4, Nd:YAG or a CO_2 laser to said foil.

Claim 13 (original): The method of claim 12, wherein the step of applying a laser beam comprises:

applying a laser beam at a scan rate in the range of about 20-500 mm/sec.

Claim 14 (original): The method of claim 13, wherein the step of applying a laser beam comprises:

applying a laser beam with spot size in the range of about 20 to about 100 microns.

Claim15 (original): The method of claim 1, wherein said step of applying a laser beam comprises:

applying said laser beam to create an irregular pattern on said foil.

Claim 16 (canceled).

Claim 17 (original): The method claim 1, wherein said step of applying a laser beam further comprises:

applying said laser beam to both sides of said foil.

Claim 18 (original): The method of claim 1, further comprising a step after said applying and etching steps of:

widening said foil after said step of applying laser.

Claim 19 (original): The method of claim 1, further comprising a step of:

forming said foil.

Claim 20 (original): The method of claim 19, wherein said forming step further comprises:

(a) forming said foil in a solution comprising citric acid;

(b) heating said solution to a temperature in the range of about 80-100^{O}C;

(c) forming said foil at a current density in the range of about 10-20 mA/cm^{2}; and

(d) forming said foil at a voltage in the range of about 300-600 Volts.

Claim 21 (canceled).

Claim 22 (new). The method of claim 1, wherein said wave pattern is a parallel wave pattern.

Claim 23 (new). The method of claim 1, wherein said wave pattern is an intersecting wave pattern.

Claim 24 (new). A method for increasing the mechanical strength of a metal foil, comprising:

(a) etching a metal foil; and

(b) applying a laser to said foil after said etching step to form a pattern.

Claim 25 (new) The method of claim 24, wherein said pattern is selected from the group consisting of a labyrinth, staggered hole, intersecting wave or parallel wave pattern.